

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/037,899	10/22/2001	Oleg Shikhman	INE-0061	6867
23413 7590 12/28/2007 CANTOR COLBURN, LLP			EXAMINER	
20 Church Street			HOFFMAN, MARY C	
22nd Floor Hartford, CT 06	5103		ART UNIT	PAPER NUMBER
maniora, er o			3733	
			MAIL DATE	DELIVERY MODE
			12/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)				
	10/037,899	SHIKHMAN ET AL.	SHIKHMAN ET AL.			
Office Action Summary	Examiner	Art Unit				
Last Control of Control of Control	Mary Hoffman	3733				
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet w	ith the correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D. Extensions of time may be available under the provisions of 37 CFR.1.1 If Mo period for reply is a genefited above, the maximum statutory period. Failur to reply within the set or extended period for reply will. by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUN 36(a). In no event, however, may a will apply and will expire SIX (6) MO t, cause the application to become A	CATION. reply be timely filed NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 04/2	5/2007, 09/13/2007.					
2a)⊠ This action is FINAL. 2b)☐ This						
Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.	D. 11, 453 O.G. 213.				
Disposition of Claims						
4) Claim(s) 1-64 is/are pending in the application						
4a) Of the above claim(s) 15-54 and 60-64 is/a	re withdrawn from consid	leration.				
Claim(s) is/are allowed.						
 Claim(s) <u>1-14 and 55-59</u> is/are rejected. 						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/o	or election requirement.					
Application Papers						
9) The specification is objected to by the Examine						
10) The drawing(s) filed on 24 June 2002 is/are: a						
Applicant may not request that any objection to the						
Replacement drawing sheet(s) including the correct).			
11) ☐ The oath or declaration is objected to by the E	xaminer. Note the attach	ed Office Action or form P1O-152.				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C.	§ 119(a)-(d) or (f).				
a) ☐ All b) ☐ Some * c) ☐ None of:						
 Certified copies of the priority document 						
Certified copies of the priority document						
3. Copies of the certified copies of the price		n received in this National Stage				
application from the International Burea		A				
* See the attached detailed Office action for a list	t of the certified copies no	t received.				
Attachment(s)						
1) Notice of References Cited (PTO-892)		Summary (PTO-413) o(s)/Mail Date				
Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO/SB/08)	5) 🔲 Notice o	Informal Patent Application				
Paper No(s)/Mail Date	6) Other: _					

DETAILED ACTION

Election/Restrictions

Applicant's arguments, see Applicant's Remarks page 2, filed 09/13/2007, with respect to election restriction have been fully considered and are persuasive. The restriction requirement has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 35 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the International application designated the United States and was published under Article 21(2) of such treatly in the English language.

Claims 1-3, 5-8, 10, 12, 13, 14, 55 and 56 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,643,289 to Sauer et al.

Sauer discloses a crimping and cutting device comprising a hammer head (26) having a first side and an opposite second side, and a ferrule engaging edge (FIG. 8)

Application/Control Number: 10/037,899

Art Unit: 3733

located on the second side; a tip (16) having a distal end and a proximal end, the tip having a hammer head opening for receiving the hammer head (FIG. 8), the hammer head opening extending from the distal end of the tip to the proximal end of the tip, the tip further having a ferrule accepting opening near the distal end of the tip (FIG. 8 securing member 100), and a cutting edge within the hammer head opening and fixed relative to the tip, the cutting edge located proximally of the ferrule accepting opening (blade 30), a handle assembly having a trigger (FIG. 1 handle 12), wherein activation of the trigger draws the hammer head proximally within the tip (handle member 48). The device further comprises an adjustment screw within the handle assembly, wherein a length of a central rod connecting the hammer head to the handle assembly is adjustable by the adjustment screw (pin 65), wherein the hammer head further comprises a first camming surface located on the first side of the hammer head and the tip comprises a second camming surface near the distal end of the tip and opposite the ferrule accepting opening (FIGS 8 and 9), wherein the movement of the hammer head in a proximal direction directs the hammer head towards the ferrule accepting opening (FIG. 9), wherein the first camming surface and the second camming surface abut flushly when the hammer head is at the distal end of the tip, wherein the first camming surface does not abut the second camming surface when the hammer head is pulled proximally of the ferrule accepting opening, wherein the tip further comprises an aperture between the distal end and the proximal end of the tip, the cutting edge located distally of the aperture (FIG. 9). Sauer discloses a suture loading assembly for threading suture material through a surgical instrument, the suture loading assembly comprising:

Application/Control Number: 10/037.899

Art Unit: 3733

a body, an attaching member extending from the body for attaching the body to the surgical instrument; and, a flexible extending from a distal end of the body (Column 7 lines 1-21).

Claims 1-10, 12, 55 and 56 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,641,592 to Sauer et al.

Regarding claim 1. Sauer discloses a crimping and cutting device comprising: a hammer head (134) having a first side and an opposite second side, and a ferrule engaging edge located on the second side (FIG. 16A); a tip (106) having a distal end and a proximal end, the tip having a hammer head opening for receiving the hammer head (128), the hammer head opening extending from the distal end of the tip to the proximal end of the tip, the tip further having a ferrule accepting opening (138) near the distal end of the tip, and a cutting edge within the hammer head (144) opening and fixed relative to the tip, the cutting edge located proximally of the ferrule accepting opening. The hammer head further comprises a first camming surface (134a) located on the first side of the hammer head and the tip comprises a second camming surface (128a) near the distal end of the tip and opposite the ferrule accepting opening (claim 2). Movement of the hammer head in a proximal direction directs the hammer head towards the ferrule accepting opening (FIG. 16B and 16C) (claim 3). The second camming surface forms a wall of the hammer head opening and flares outwardly towards the distal end of the tip (FIG. 16A) (claim 4). The first camming surface and the second camming surface abut flushly when the hammer head is at the distal end of the tip (FIG. 16A) (claim 5). The first camming surface does not abut the second camming surface when the hammer

Application/Control Number: 10/037.899

Art Unit: 3733

head is pulled proximally of the ferrule accepting opening (FIG. 16D) (claim 6). The tip further comprises an aperture (128b) between the distal end and the proximal end of the tip, the cutting edge (144d) located distally of the aperture (FIG 16A) (claim 7). Proximal movement of the hammer head within the tip causes the ferrule engaging edge of the hammer head to contact the cutting edge after the hammer head has past the ferrule accepting opening of the tip (FIGS 16A-16F) (claim 8). The tip comprises a distal end outer diameter and a proximal end outer diameter, wherein the outer diameter of the distal end is greater than the outer diameter of the proximal end (FIG 16A) (claim 9). A handle assembly having a trigger (116), wherein activation of the trigger draws the hammer head proximally within the tip (Column 14 lines 26-33) (claim 10). An adjustment screw within the handle assembly, wherein a length of a central rod connecting the hammer head to the handle assembly is adjustable by the adjustment screw (Column 12 lines 43-65) (claim 12).

Sauer discloses a method of securing suture material using a crimping and cutting device, the method comprising: threading the suture material through a ferrule in the device (FIG 16D suture material 156); moving a hammer head proximally through a tip of the device to crimp the ferrule (FIGS. 16A-16F); continuing to move the hammer head proximally after the ferrule has been crimped entrapping the suture material within the ferrule (FIG. 16E); abutting the hammer head against a cutting edge within the tip (FIGS. 16D-16F), capturing the suture material therebetween; and, applying pressure with the hammer head against the cutting edge until the suture material is cut (FIG. 16E) (claim 55). Moving the hammer head proximally comprises squeezing a trigger on

Art Unit: 3733

a handle assembly of the crimping and cutting device (Column 14 lines 26-33) (claim 56).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sauer et al. '289 in view of U.S. Patent No. 5.839.639 to Sauer et al.

Sauer '289 discloses the claimed invention except for the safety button. Sauer '639 teaches that a safety button is provided to prevent premature firing of the anvil assembly (Column 4 lines 27-46 and Column 6 lines 35-48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Sauer '289 with the safety button of Sauer '639 in order to prevent premature firing of the hammer (anvil) element.

Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sauer et al. '592 in view of U.S. Patent No. 5,839,639 to Sauer et al.

Sauer '592 discloses the claimed invention except for the safety button. Sauer '639 teaches that a safety button is provided to prevent premature firing of the anvil assembly (Column 4 lines 27-46 and Column 6 lines 35-48). It would have been

Application/Control Number: 10/037.899

Art Unit: 3733

obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Sauer '592 with the safety button of Sauer '639 in order to prevent premature firing of the hammer (anvil) element.

Claims 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sauer et al. '592 in view of Sauer '289.

Sauer '592 discloses the claimed invention except for the methods of claims 58-59 in which a flexible loop is used to thread the suture through the ferrule, the loop comprising a sliding suture assembly.

Sauer '289 disclose a flexible loop used to thread the suture through the ferrule, the loop comprising a sliding suture assembly to thread the suture through the aperture of the device (Column 7 lines 1-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Sauer '592 with the flexible loop sliding suture assembly of Sauer '289 to thread the suture through the aperture of the device.

Response to Arguments

Applicant's arguments filed 04/25/2007 have been fully considered but they are not persuasive.

Applicant argues that because the cutting edge slides distally within the tip of Sauer '289, the cutting edge cannot be considered fixed relative to the tip. The examiner respectfully disagrees. The cutting edge remains fastened inside of the tip at

all times and does not slide anywhere outside of the tip. Therefore, it can be considered fixed in the tip, or fixed relative the tip, even though it slides within the tip.

Applicant also argues that the cutting blade of Sauer '289 is not located proximal of the ferrule accepting opening. The examiner respectfully disagrees, since the term "proximal" and "distal" are relative terms. It appears that Applicant is considering the tip edge furthest from the handle to be the proximal end. Nothing in at least claim 1 appears to require that the tip edge be considered the proximal end. Moreover, as seen in FIGS. 8-9, the cutting edge can be found at either side of the ferrule accepting opening.

Similarly, Applicant argues that because the cutting edge slides distally within the tip of Sauer '592, the cutting edge cannot be considered fixed relative to the tip. The examiner respectfully disagrees. The cutting edge remains fastened inside of the tip at all times via ref. #146 and does not slide anywhere outside of the tip. Therefore, it can be considered fixed in the tip, or fixed relative the tip, even though it slides within the tip.

The rejections are deemed proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

moh

Application/Control Number: 10/037,899

Art Unit: 3733

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Hoffman whose telephone number is 571-272-5566. The examiner can normally be reached on Monday-Friday 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo C. Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.